

ABSTRACT

A signal transmission gate includes a switch such as a transistor. The switch includes a gate terminal adapted to receive a control voltage, and a source terminal and a drain terminal. One of the source and drain terminals is adapted to receive an input signal, and the output signal is provided on the other terminal. A constant-voltage boosting circuit generates the control voltage such that it has a substantially constant value above a voltage of the input signal. In one embodiment, the constant-voltage boosting circuit is coupled between the gate terminal and the terminal that receives the input voltage, and generates a substantially constant voltage difference. In one implementation, a component is employed that exhibits a characteristic voltage behavior, such as a diode, for generating the substantially constant voltage difference.